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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,687	05/16/2001	Corinne Rosier	208557US2	9203

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EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,687

Applicant(s)

ROSIER ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,7-10 and 14-23 is/are rejected.
7) ☒ Claim(s) 4-6 and 11-13 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. This Office action is in response to applicant's paper filed 5/3/2006. **Claims 1, 4-23** as amended are still in consideration for this application. Applicant has added claim 23.
2. The examiner **withdraws** the anticipated rejection to *Sayed* and corresponding obviousness rejections. In particular, the rejection is replaced as necessitated by amendment.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1, 9, and 14-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,882,637 B1 to *Le et al.* ("*Le*") in view of RFC 2508 Compressing IP/UDP/RTP Headers for Low-Speed Serial Links to *Casner et al.* ("*Casner*").

As such to **claim 1**, *Le* discloses two transmission modes with respect to Adaptive Header Compression (ACE) which uses a feedback channel from the receiver (i.e., an implicit mode and an explicit mode). In particular, the reference teaches that when an ACK is received the compressor advances from a lower compression state to a higher compression state and when an ACK is not received the compressor advances from a higher compression state to a lower compression state, see e.g., columns 16-19. The examiner notes that state of the receiver with respect to an error flag is indicative of an ACK being sent from the receiver. *Le* teaches a modified version of RTP header

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compression with respect to RFC 2508. In particular, it may be not clear from the reference that packets are transmitted without an identifier. In particular, *Le* teaches transmitting packets by performing header compression which includes such techniques as short/longer sequence numbers and difference in time stamps, see e.g., column 3. In other words, *Le* teaches performing sending full header packets and packets with compression. Thus the examiner notes that since compression is used, packets are transmitted without sending an identifier thus meeting the claim limitation. However, since the above may not be clear from the reference, the examiner notes that following obviousness rejection.

Casner teaches the further recited limitation above at e.g., Section 3.1 on page 4. In particular, *Casner* teaches that when applying compression, certain fields may be eliminated, thus teaching not transmitting an identifier.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Le* by clarifying that using compression eliminates certain fields in a packet thus teaching not transmitting a packet with an identifier.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to compress a packet by reducing the size of a packet. In particular, *Casner* cures the above-cited deficiency by providing a motivation found at e.g., Section 3.1 beginning on page 4.

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Second, there would be a reasonable expectation of success since the primary reference uses RFC 2508.

As to **claim 9**, the external event in the ACK packet, see e.g., columns 17-19.

As to **claim 14**, the ACK packet is an ARQ protocol, see e.g., columns 17-19.

As to **claim 15**, see e.g., bottom of column 18 with respect to different types of ARQ protocols that are implemented.

As to **claim 16**, see similar rejection to claim 1.

As to **claim 17**, see similar rejection to claim 1.

As to **claim 18**, see similar rejection to claim 1. Note that the receiver is the transmitter for the purpose of the rejection since the receiver transmits packets as recited in the claims.

As to **claims 19-22**, the variables relating to said identifiers of said data packets are at least the compression type of the packet and the state variables relating to an implemented protocol are at least the state variables used to implement e.g., figure 4.

As to **claim 23**, see similar rejection to claim 1.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. **Claims 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,882,637 B1 to *Le et al.* ("*Le*") in view of "Data and Computer Communications" to *William Stallings* ("*Stallings*").

As such to **claim 7**, *Le* discloses ARQ but may not teach the fundamentals of ARQ. Thus, *Le* is silent or deficient to the further limitations with respect to ARQ.

Stallings teaches the further recited limitation above at e.g., at pages 159-176. In particular, with respect to a conventional acknowledgement, see e.g., the section on page 163 with respect to sliding-window protocol. One example of an advance acknowledgement message is a receiver not ready (RNR) message.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Le* by clarifying that details or the ARQ method.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be for error and flow control. In particular, *Stallings* cures the above-cited deficiency by providing a motivation found at e.g., page 158 with respect to data link control. Second, there would be a reasonable expectation of success since both references teach ARQ. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 10**, in addition to the reasoning provided for claim 7, see e.g., using a sliding window as taught by *Stallings* where the parameters or the window are EoW and

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BoW. In addition, the ARQ method sends acknowledgements sequentially, see e.g., page 173.

7. **Claim 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,882,637 B1 to *Le et al.* (“*Le*”) in view of “Data and Computer Communications” to *William Stallings* (“*Stallings*”) in further view of “ARQ Error Control for Fading Mobile Channels” to *Zorzi et al.* (“*Zorzi*”).

As to **claim 8**, in addition to the reasoning provided for claim 7. *Le* and *Stallings* may be further silent or deficient to a clock and the states associated with a clock. *Zorzi* teaches the above limitations since *Zorzi* teaches ARQ where the states of a clock are taught as the combination of ARQ and the timer as taught by the reference. Hence examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to teach a clock associated with ARQ. In particular, one skilled in the art prior to applicant’s invention would have been motivated to use a clock to avoid lost feedbacks. As such, *Zorzi* teaches the above motivation e.g., at page 446.

Allowable Subject Matter

8. **Claim 4-6, 11, 12, and 13** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571)272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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DWF

Derrick W. Ferris
Examiner
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RICKY Q. NGO
SUPERVISORY PATENT EXAMINER